

EUROCARGO

TECHNICAL DESCRIPTION

ML140E24W
(EURO 3 - NEW)



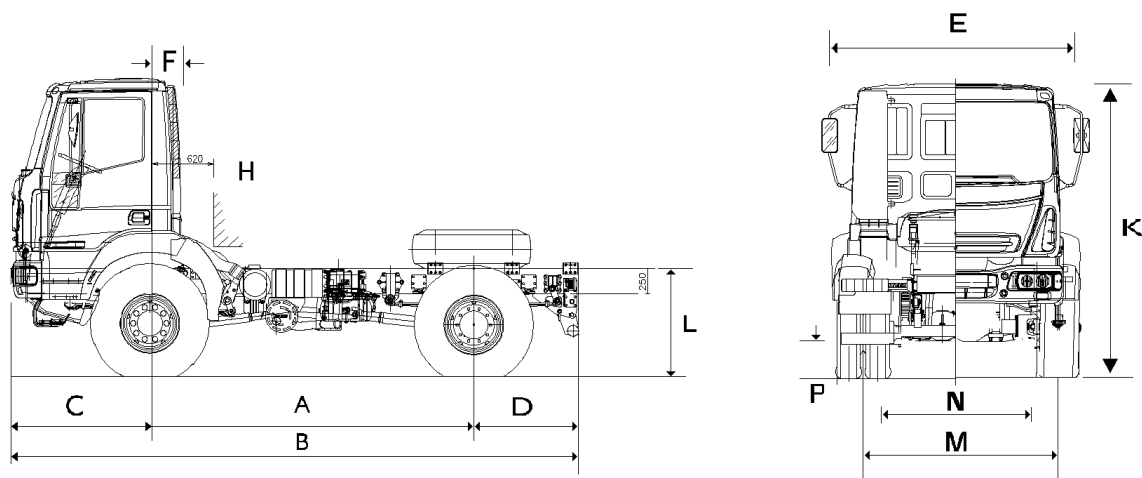
IVECO

Commercial & Technical Training

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Gearbox FS0 5206B

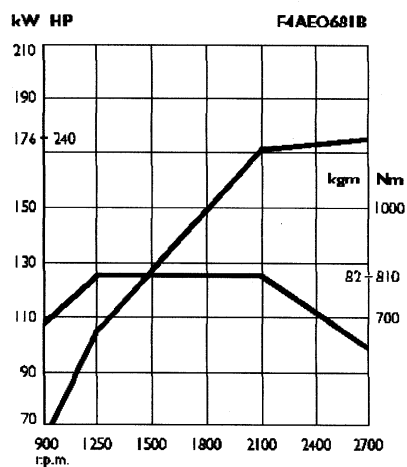
Wheelbase	Cab	Drive	Vcb
3240	MLC	LEFT HAND DRIVE	ENTEC1D1
	MLC	RIGHT HAND DRIVE	ENTEC1DA
3690	MLC	LEFT HAND DRIVE	ENTEC2D1
	MLC	RIGHT HAND DRIVE	ENTEC2DA
3915	MLC	LEFT HAND DRIVE	ENTEC3D1
	MLC	RIGHT HAND DRIVE	ENTEC3DA


DIMENSIONS (mm) (AB 1046-I MLC)

A Wheelbase	<u>3240</u>	<u>3690</u>	<u>3915</u>
B Total length	5675	6440	6665
C Front overhang	1387	1387	1387
D Rear overhang	1043	1358	1358
E Max width	2490	2490	2490
H Front of body to front axle distance	620	620	620
K Overall height to top of cab, unladen	3005	3005	3005
L Height of frame at frame end, unladen	1244	1248	1244
M Front track	1945	1945	1945
N Rear track	1850	1850	1850
P Minimum ground clearance (Axle2)	337	337	337
Overall width (rear tyres)	2440	2440	2440
Approach angle	29°	29°	29°
Departure angle	21°	16°	16°
Ramp angle	32°	27°	26°
Back of cab to end of frame	4053	4818	5043
Steering radius wall to wall	7335	8120	8515
Steering radius kerb to kerb	6650	7435	7825
Frame height at front axle, unladen	1108	1108	1108
Frame height at rear axle, unladen	1211	1210	1209

Weights (kg) (BB 1083-I MLC)			
Wheelbase	<u>3240</u>	<u>3690</u>	<u>3915</u>
GVW EEC	14000	14000	14000
GTW EEC	17500	17500	17500
Plated weight on axle 1 EEC	5200	5200	5200
Plated weight on axle 2 EEC	9500	9500	9500
Body payload EEC	8575	8515	8465
Trailer total weight (inertia brake)	3500	3500	3500
Vehicle kerbweight	5425	5485	5535
Vehicle kerbweight 1	3665	3680	3680
Vehicle kerbweight 2	1760	1805	1855

Engine F4AE0681B*C (EB 0025-I)



Position	FRONT
Disposition	VERTICAL
Cycle	DIESEL
Aspiration type	TC+AFTERCOOLER
Injection type	DIRECT
No. of cylinders	6 IN-LINE
Fuel type	DIESEL
4 Stroke / 2 Stroke cycle	4
Total displacement cm ³	5880
Bore / Stroke mm	102 / 120
Max power (1)	176 kW 240 HP 2700 rpm
Specific fuel consumption-max power	220 g/kWh
Max torque (2)	82 kgm 810 Nm 1250 rpm
Specific fuel consumption-max torque	200 g/kWh
Power loss	0.2% every 100 m above 1000 m sea level
Dry weight kg	500
Oil capacity kg	12
Crankshaft supported by	7 Bearings
Injection pump type	HIGH PRESSURE / COMMON RAIL
Injection pump governor type	ELECTRONIC (AT ALL SPEED BY ECU)
Cooling system	WATER
Hydraulic steering pump	
Cold starting type	TERMOSTARTER+CHOKE+GRID HEATER
Emissions according regulations	EURO3

Fuelling (ABB 0022-I)

No. of tanks	1
Total tank capacity l.	115
Position on frame	RIGHT SIDE
Fuel pump	
Prefilter	
Filter	
Fuel separator	

Air intake (AC 0001)

Filter type	DRY
Snorkel position	BEHIND THE CAB ON THE LEFT
Air intake	WITH SNORKEL

Cooling (AD 0001)

Cooling system	WATER
Fan type	VISCOSTATIC

Clutch 15" (FB 0006-I)

Type	SINGLE PLATE DIAPHRAGM
Actuation	PULL TYPE
Release control	HYDRAULIC
Adjustment	AUTOMATIC

GearboxEATON - FS0 5206B (GB 0011-I)

Type	SYNCRONIZED
Installation	ENGINE FLANGED
Control	MANUAL H
No. of gears (....+.....reverse)	6+1
Casing material	ALUMINIUM
Dry weight kg	117
Gearbox spacing	7.69
Possible P.T.O. installation	
Power take off	1

Gear ratios

1st	6.08
2nd	3.53
3rd	2.09
4th	1.35
5th	1.00
6th	0.79
Rev. 1st	5.43

Transfer box TC 700 (HT 0001-I)

Type	3 shafts
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Installation	SEPARATED FROM THE GEARBOX, ON THE FRAME
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Max input torque kgm/Nm	-/7000
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Gear ratios

1	0.95
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2	1.62
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Torque distribution: front	33%
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Torque distribution: rear	67%
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All wheel drive	PERMANENT
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Transfer box dry weight kg	140
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Oil capacity l	5
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Differential lock	
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Front driving axle (LB 0008-I)

Identification	5956
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Oil capacity kg	5
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Reduction type	CENTRAL SIMPLE+HUB REDUCTION
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Rear drive axle (MT 0020-I)

Identification	451146/1
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Type	STRAIGHT BEAM
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Max input torque Kgm/Nm	540\5300
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Hub reduction ratio	3.65
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Cross-axle differential lock	
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Axle	SINGLE
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Wheel arrangement	TWIN
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Axle box material	CAST IRON
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Weight kg	555
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Axle construction	MERGED
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Reduction type	CENTRAL SIMPLE+HUB REDUCTION
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Central reduction ratio	1.90
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Suspensions (NB 0019-I)

Front driving axle	SINGLE ACTING PARABOLIC SPRING
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Rear drive axle	DOUBLE ACTING PARABOLIC + HELPER SPRING
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Main features

Axle no.	1	2
Leaf width (mm)	80	80
Auxiliary leaf spring length (mm)		1102
Master leaf spring length (mm)	1616	1666
No. of auxiliary leaf springs		3
No. of master leaf springs	4	3

Shock absorbers (PT 0001-I)

Shock absorbers no. (front)	2
Shock absorbers no. (rear)	2
Shock absorbers type	HYDRAULIC TELESCOPIC

Anti-roll bars (OT 0001-I)

Position	FRONT AND REAR AXLE
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Wheels (QT 0006-I)

Wheel type	DISC
Rim dimensions	22.5" x 7.52"

Tyres (RT 0009-I)

Tyre dimensions	11 R 22.5
Load-index	148/144
Speed index	K = 110 Km/h
Rolling radius mm	510
Rolling circumference mm	3202

Axle	Mounting
1	SINGLE
2	TWIN

Steering (KT 0001-I)

Type	HYDRAULIC
Adjustment type	COLUMN ANGLE
Degrees of freedom	1
Steering wheel diameter (mm)	465
No. of parts steering column	2

Chassis (mm) (JT 0041-I)

Frame section	PARALLEL
Front crossmember fixing	BOLTED
Middle crossmember fixing	RIVETED
Rear crossmember fixing	BOLTED

Chassis (mm) (JT 0041-I)			
Wheelbase	<u>3240</u>	<u>3690</u>	<u>3915</u>
Side member section	"C"	"C"	"C"
Flange thickness	6	6	6
Web thickness	6	6	6
Upper flange width	70	70	70
Lower flange width	70	70	70
Side member max. height	252	252	252
Frame width at front	852	852	852
Frame width at rear	852	852	852

Brakes (SB 0041-I)

Rear braking control

Air dryer

Antiskid system

ABS

Auxiliary brake / Engine brake

ON THE EXHAUST PIPE WITH THROTTLE VALVE

Emergency brake

COMBINED WITH SERVICE BRAKE

Parking brake

MECHANICAL WITH SPRING CYLINDER

Service brake

AIR

Parking brake axles

AXLE 2

Total tank capacity l.

30

Air compressor displacement cm³

225

Air compressor

ONE CYLINDRE

Brake standards

EEC

Semicoupling standards

EEC

No. of circuits

2

Number of air tanks

2

Axle no.	Axle 1	Axle 2
Brake type	DRUM	DRUM
No. of cylinders	2	4
Drum diameter (mm)	381	381
Friction area cm ²	2800	2800
Linings width (mm)	178	178

Electrics (VB 0014-I)

Voltage V

24

Alternator power V/A

28/70

No. of batteries

2

Battery voltage V

12

Battery capacity Ah

110

Starter motor power kW

4

Lighting (WB 0027-I)

No. of headlights

2

Type of lamps

HALOGEN

Front parking lights

Tail lights

Front side marker lights

Rear fog lights

Backup lights

Hazard lights

Lighting (WB 0027-I)

Number plate lights

Rear fog lights

Side lights

Stop lights

Front direction indicators

Side direction indicators

Rear direction indicators

Provision for front fog lights

Additional lights prearrangement

Cab MLC (YB 0047-I)

Cab type FORWARD CONTROL

Version SHORT CAB

Material STEEL PLATE

Internal height in front of the seat (mm) 1620

Tilting device HYDRAULIC

Tilt angle 60°

Front doors type SIDE HUNG, INTERNALLY COVERED WITH FABRIC

Front doors height (mm) 1424

Front doors width (mm) 954

Front door(s) opening angle 90°

Wind-up-window type (front) MANUAL ON RIGHT - MANUAL ON LEFT

Side spoiler

Sun visors no. 2

Roof material SYNTHETIC, WASHABLE

Roof light

Windscreen type STRENGTHENED - LAMINATED

Windscreen ONE PIECE - CURVED

Windscreen type EEC

No. of windscreen wipers 2

No. of windscreen wiper speeds 2

Front suspension type 2 HELICAL SPRING + SHOCK ABSORBER

Rear suspension type 2 HELICAL SPRINGS AND SHOCK ABSORBERS (Mc Pherson)

Rear view mirrors no. 4

Mirror control MANUAL

Kerbside approach mirror

No. of places 3

No. of seats 2

Driver seat type 3 DEGREES OF FREEDOM

Driver seat adjustment IN HEIGHT, LENGTH AND BACK INCLINATION

Passenger seat(s) type TWO SEATS BENCH WITH DOUBLE BACK

Cab MLC (YB 0047-I)

Passenger seat adjustment TIPPING CENTRAL BACK it can be tipped and made into a small table

Fan speed no. 4

Heating control MANUAL

Provision for safety belts

Lighter

CB wiring

Radio wiring

Remarks:

Rear wall without windows, doors with fabric carpeting, storage compartments white bottle holder, defroster system for door windows, arm rests.

Corrosion protection, underseal and cavity sealing with wax.

Roof panel:

Prearrangement for revolving roof lamp.

Floor:

Covered with rubber mats, sound proof, engine brake control.

Interior equipment:

Storage compartments, shelves upon overheads console, shelves on floor level below seats, ceiling lamps, spotlamps, loudspeakers.

Central console:

Storage compartments, central panel, adjustable air bleeds, ash-tray, lighter, heating control.

Exterior equipment:

Steel front bumper with foldable steps, radiator protection guard, mudguard, front grille, pre-arrangement for front towing hook (to be screwed), lateral spoilers as splash protection, mudflaps, external engine starter (when cab is tilted) including safety device.

In cab equipment (TB 0094-I)

In cab equipment (TB 0094-I)

Indicator lamps, on cluster:

External lights - High beam headlight - General warning light (STOP) - General alarm - Rear fog light - Direction indicator (left) - Engine brake - Brake failure - Hazard lights - Parking brake - Cluster failure - Direction indicator (right) - Tachograph failure - Engine preheating - ABS failure - Low gear range (9 gears gearbox only) - Speed limiter (programmable).

Indicator lamps, on cluster. Prearrangement:

Side PTO - Rear PTO - Longitudinal differential lock - Rear differential lock - Front differential lock - Mirrors heating - Fog lights.

Controls on instrument panel:

External lights - Headlights adjustment - Rear fog lamp - Hazard lights - Roof light - Speed limiter (programmable) - Engine brake.

Controls on instrument panel. Prearrangements:

Fog lights - Mirrors heating - Rotating roof lights - Heated windscreen - PTO - Power windows adjustment: full electrical - display menu on - display menu off - Display set on - display set off - contact breaker - Cab internal light: set / display - Cab internal light (MLL-Medium Roof only) - Electrically-powered roof hatch - Tail lift.

On central tunnel: electrical / heated mirrors control.

Instruments:

Fuel level with reserve indicator and warning light - Water temperature with warning light - Tachometer with trip mileage counter - Rpm counter with coloured sectors - Display - Tachograph 2 drivers - Light dimmer switch - Possibility of connection for external diagnosis (with socket in cab).

Multifunction stalks :

Horn - Low beam / high beam - Headlight flasher - Direction indicators - Windscreen wipers with 2 washer jets - Windscreen wipers with interval - Headlight wipers.

Highline version display (option):

Display levels of various minimum / maximum fluid levels - extensive diagnostics - functional check of lights - maintenance plan - travel details

Tools kit.

Miscellaneous (XB 0058-I)

Rear underride protection

EEC NORMS

Jack

Front towing hitch

Tools kit

Drawings (DB 0556-I)

Wheelbase	<u>3240</u>	<u>3690</u>	<u>3915</u>
Left hand drive vehicle drawing	504090041	504090042	504090043

Gearbox FS0 5206B
Tyres 10 R 22.5

			Max. gradient %									
Rear axle ratio	Gearbox ratio	Max. speed Km/h	GVW					GTW				
			12	14				15.5	17.5			
5.33	1 - 6.08	15.5	40,0	33,0				30,0	26,0			
	6 - 0.79	119.6	4,2	3,5				3,1	2,6			
5.33 Off-road	1 - 6.08	9.6	77,0	61,0				53,0	46,0			
	6 - 0.79	73.8	7,3	6,2				5,5	4,8			
5.72	1 - 6.08	14.5	44,0	36,0				32,0	28,0			
	6 - 0.79	111.4	4,6	3,8				3,4	2,9			
5.72 Off-road	1 - 6.08	8.9	87,0	68,0				59,0	50,0			
	6 - 0.79	68.8	7,9	6,7				5,9	5,2			
6.34	1 - 6.08	13.1	50,0	41,0				36,0	32,0			
	6 - 0.79	100.5	5,2	4,3				3,8	3,3			
6.34 Off-road	1 - 6.08	8.1	100,0	80,0				68,0	57,0			
	6 - 0.79	62.1	8,9	7,5				6,7	5,8			
6.95	1 - 6.08	11.9	56,0	46,0				40,0	35,0			
	6 - 0.79	91.7	5,7	4,8				4,3	3,7			
6.95 Off-road	1 - 6.08	7.4	100,0	94,0				78,0	65,0			
	6 - 0.79	56.6	9,8	8,3				7,4	6,5			
7.73	1 - 6.08	10.7	65,0	53,0				46,0	40,0			
	6 - 0.79	82.5	6,5	5,4				4,8	4,2			
7.73 Off-road	1 - 6.08	6.6	100,0	100,0				95,0	76,0			
	6 - 0.79	50.9	11,0	9,3				8,3	7,3			
8.28	1 - 6.08	10	72,0	58,0				50,0	43,0			
	6 - 0.79	77	7,0	5,9				5,2	4,5			
8.28 Off-road	1 - 6.08	6.2	100,0	100,0				100,0	86,0			
	6 - 0.79	47.5	11,0	10,0				9,0	7,8			

Gearbox FS0 5206B
Tyres 11 R 22.5

			Max. gradient %									
Rear axle ratio	Gearbox ratio	Max. speed Km/h	GVW					GTW				
			12	14				15.5	17.5			
5.33	1 - 6.08	16	39,0	32,0				29,0	25,0			
	6 - 0.79	123.2	4,1	3,4				3,0	2,5			
5.33	1 - 6.08	9.9	74,0	59,0				51,0	44,0			
Off-road	6 - 0.79	76.1	7,1	5,9				5,3	4,6			
5.72	1 - 6.08	14.9	42,0	35,0				31,0	27,0			
	6 - 0.79	114.8	4,4	3,7				3,2	2,8			
5.72	1 - 6.08	9.2	83,0	65,0				56,0	48,0			
Off-road	6 - 0.79	70.9	7,6	6,4				5,7	5,0			
6.34	1 - 6.08	13.5	48,0	40,0				35,0	30,0			
	6 - 0.79	103.6	5,0	4,2				3,7	3,2			
6.34	1 - 6.08	8.3	100,0	76,0				65,0	55,0			
Off-road	6 - 0.79	63.9	8,6	7,2				6,4	5,6			
6.95	1 - 6.08	12.3	54,0	44,0				39,0	34,0			
	6 - 0.79	94.5	5,5	4,6				4,1	3,5			
6.95	1 - 6.08	7.6	100,0	89,0				75,0	62,0			
Off-road	6 - 0.79	58.3	9,5	8,0				7,1	6,2			
7.73	1 - 6.08	11	62,0	51,0				44,0	38,0			
	6 - 0.79	85	6,2	5,2				4,7	4,0			
7.73	1 - 6.08	6.8	100,0	100,0				89,0	73,0			
Off-road	6 - 0.79	52.4	10,0	9,0				8,0	7,0			
8.28	1 - 6.08	10.3	69,0	55,0				48,0	42,0			
	6 - 0.79	79.3	6,7	5,7				5,0	4,4			
8.28	1 - 6.08	6.4	100,0	100,0				100,0	82,0			
Off-road	6 - 0.79	49	11,0	9,7				8,7	7,6			